

## **Bovine Papular Stomatitis**

Muzzle **reddness**

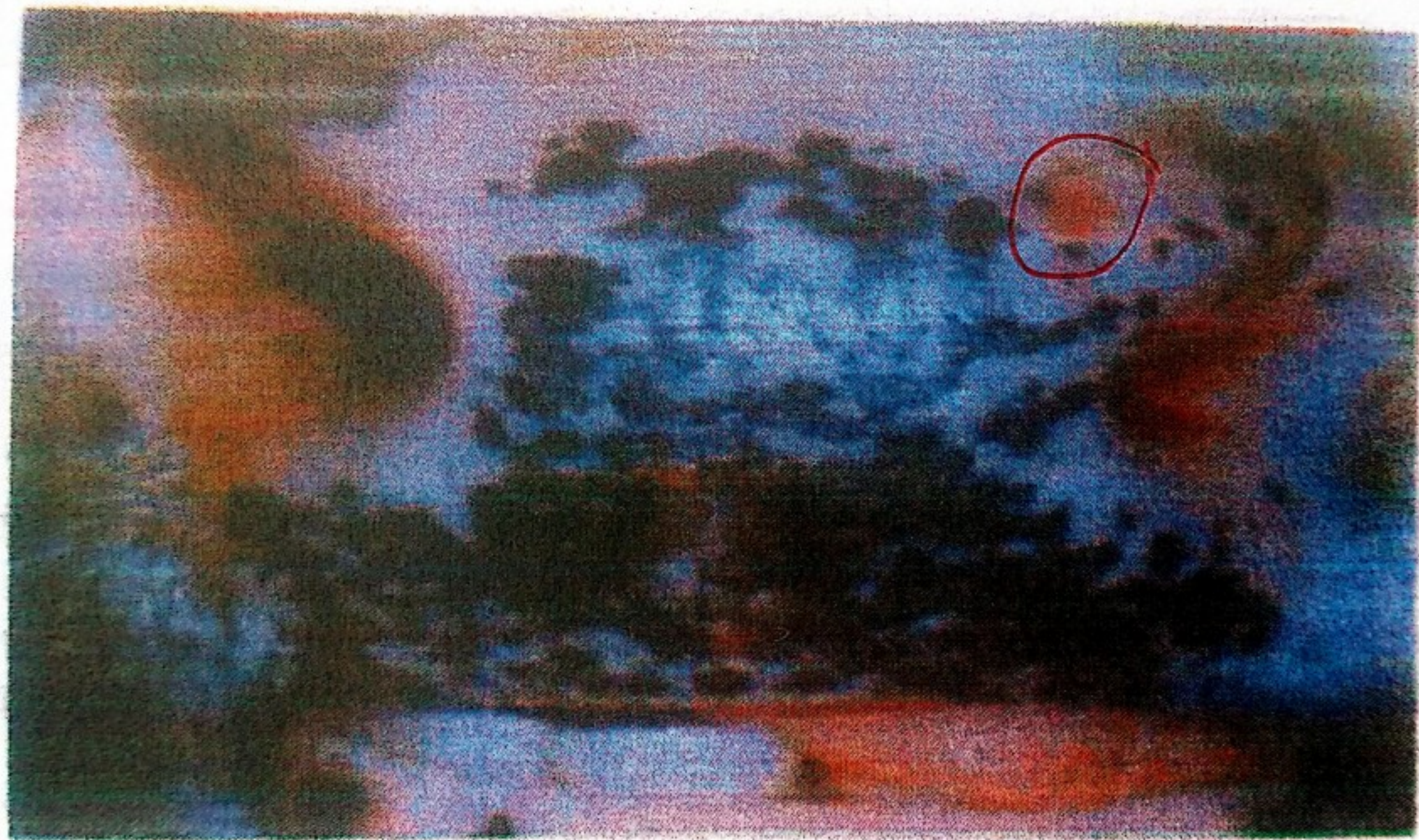
Lips, mouth **stomatitis (vesicles, erosions)**

Oesophagus **vesicles, erosions**

Forestomach **vesicles, erosions**



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Bovine papular stomatitis  
lesion on the muzzle





**Bovine papular stomatitis  
lesion on the gums**





**Bovine papular stomatitis**  
**lesions on the dental pad and hard palate**



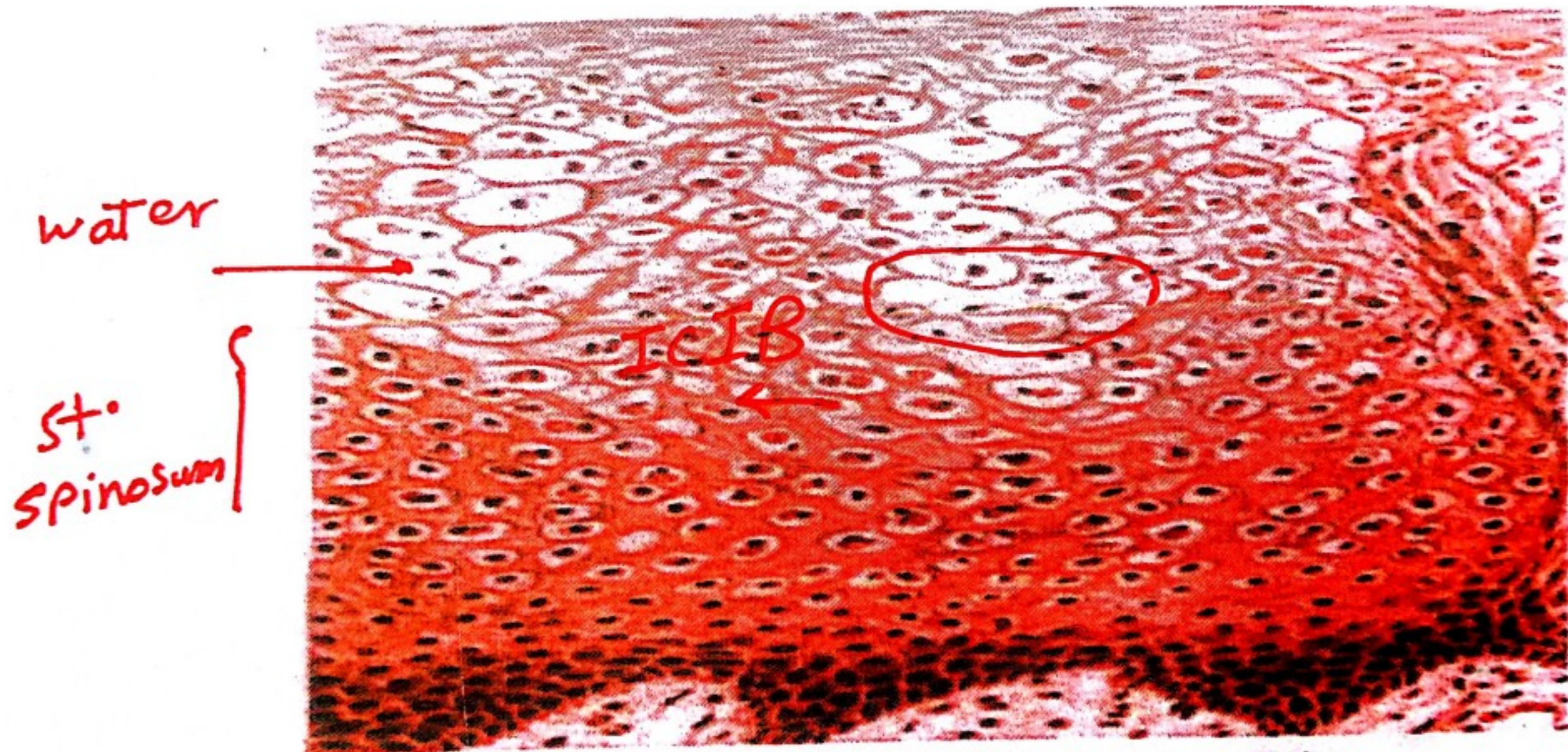


water

st.  
spinosum

Bovine papular stomatitis  
lesions on the dental pad

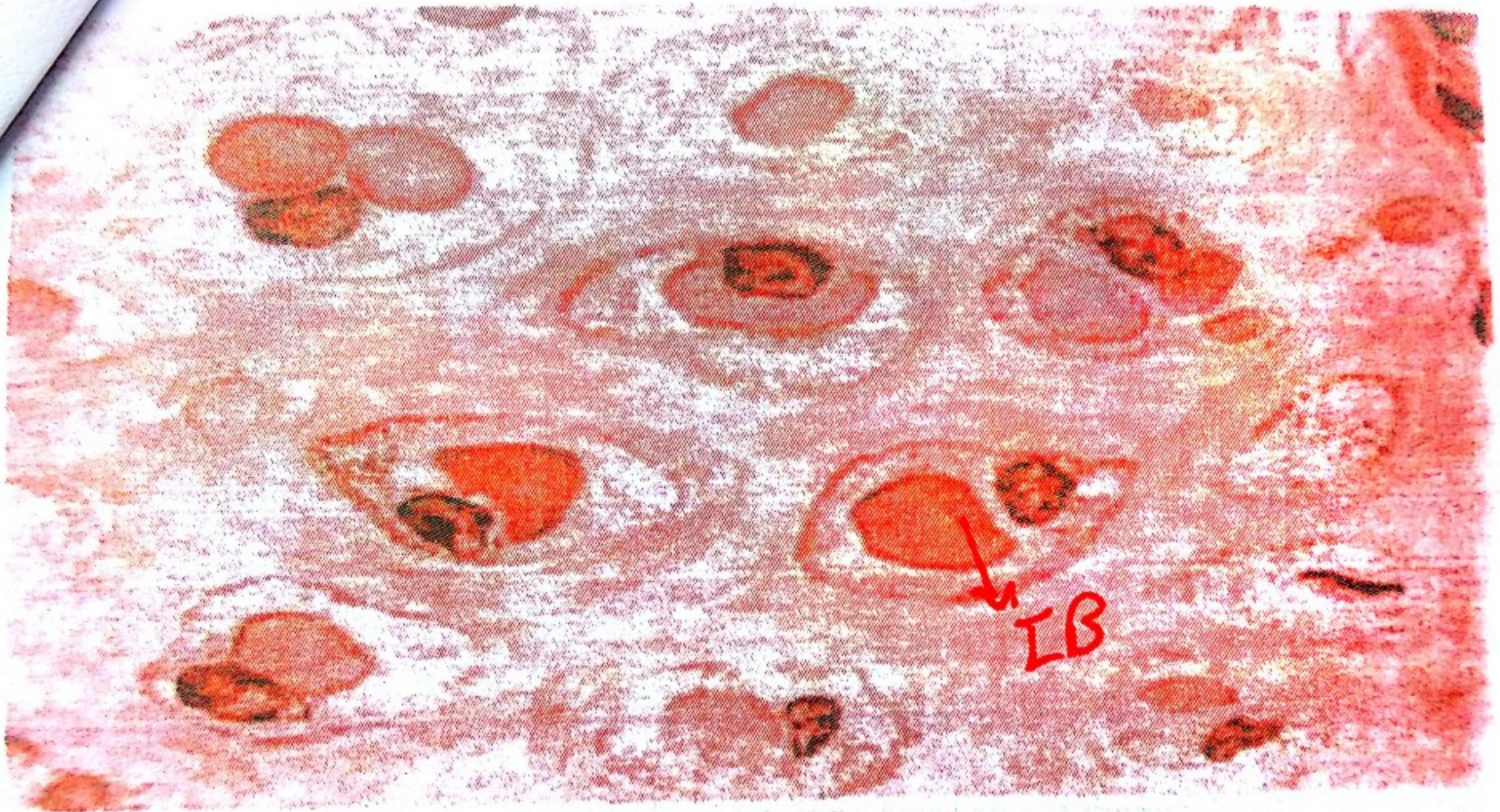




### **Bovine papular stomatitis**

- Lip : hydropic degeneration and swelling of cells in str. spinosum at the beginning of vesicle formation
- inclusion bodies are seen intracytoplasmic





**Bovine papular stomatitis**  
**Intracytoplasmic inclusion bodies**  
**in cells of str.spinosum of stratified**  
**squamous epithelium of the lip**



الطاعون البشري

## Cattle plague Rinderpest

Tongue: **erosions/ulcers**

Mouth: **necrotic stomatitis (ulcers)**

Oesophagus: **ulcers**

Forestomach: **ulcers**

Abomasum: **ulcers**

Small intestine: **ulcers, haemorrhagic enteritis**

Large intestine: **congestion / zebra stripings**

Urinary bladder: **ulcers**

Kidney: **congestion**

Eye: **conjunctivitis / corneal opacity**

Spleen: **petechial haemorrhages subcapsular**

Lymph nodes: **shrinkage / necrotic changes**

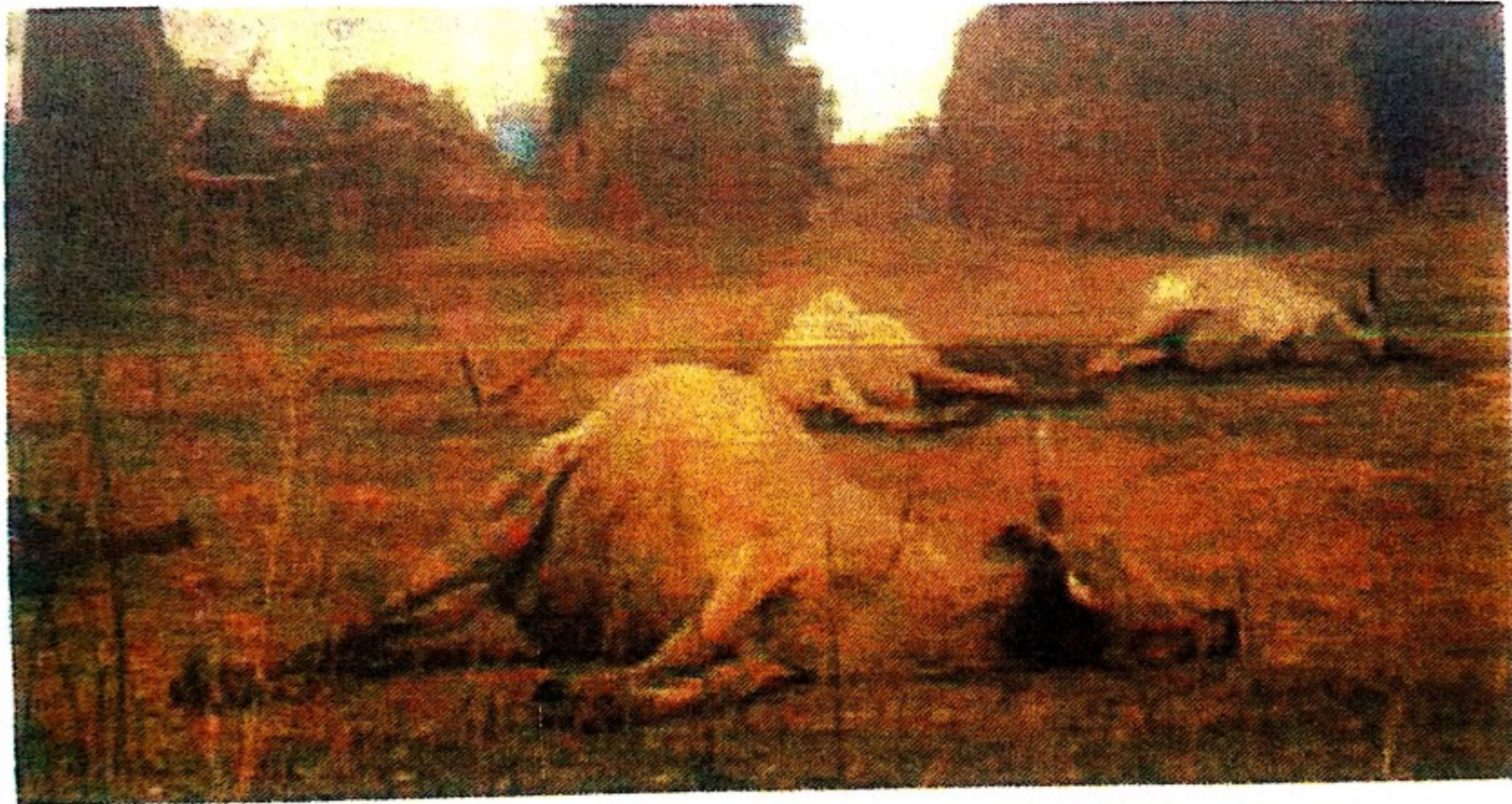




**Cattle plague (Rinderpest)**

**It is a severe contagious disease in which mortality may reach 100 %**





Cattle plague

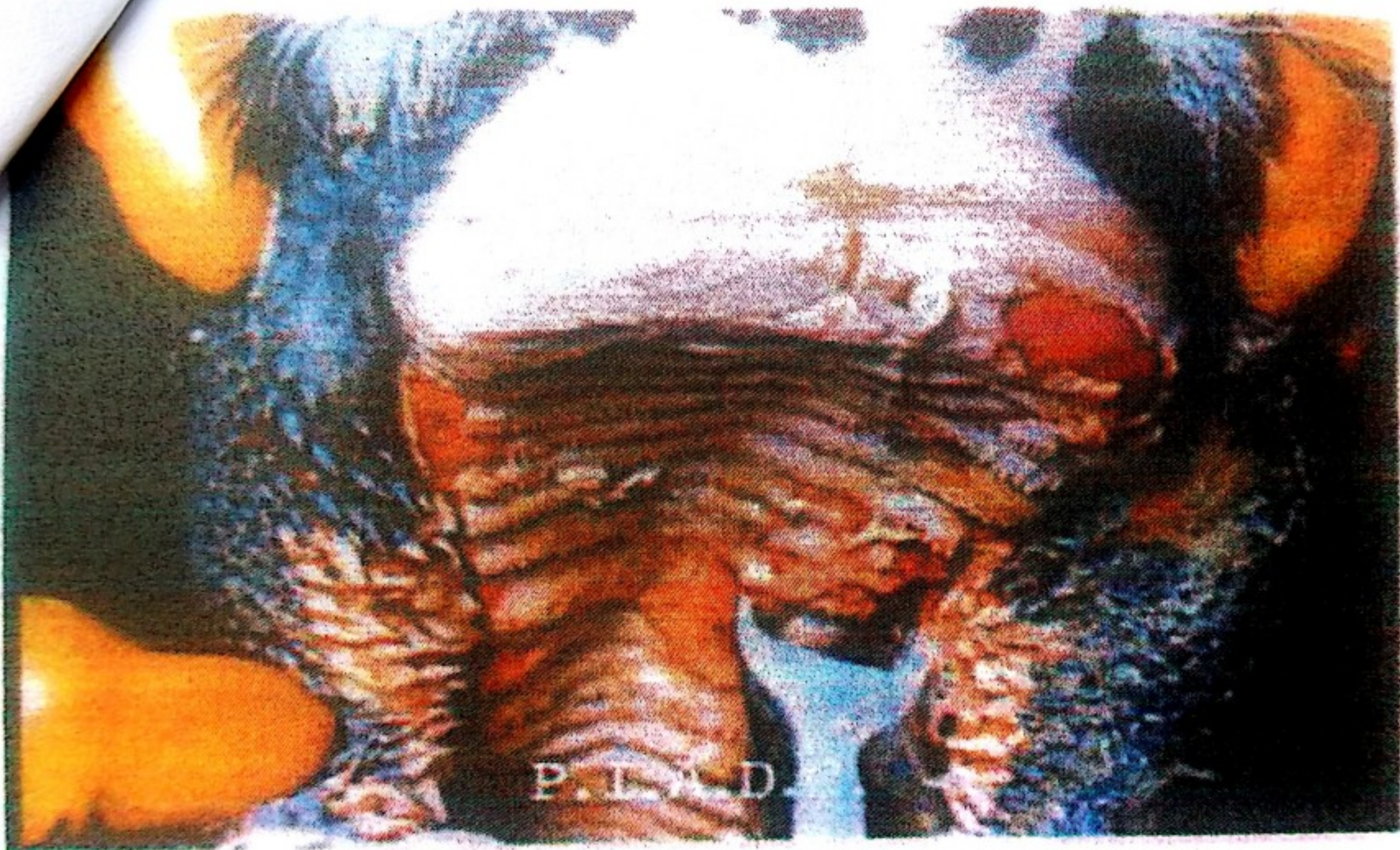
mortality may reach 100 %





Cattle plague  
increased lacrimation in an affected cow

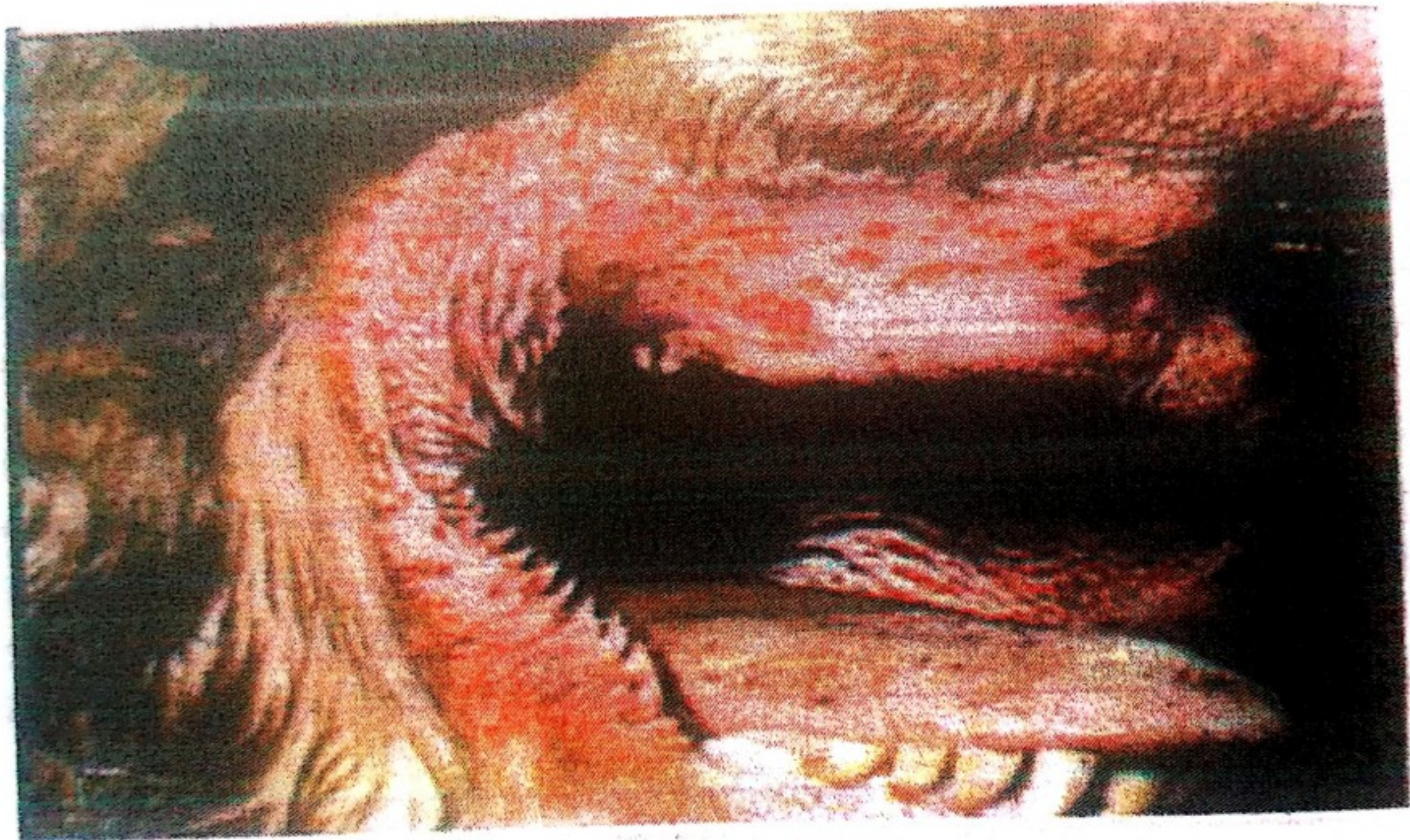




Cattle plague  
erosions on the dental pad and hard palate





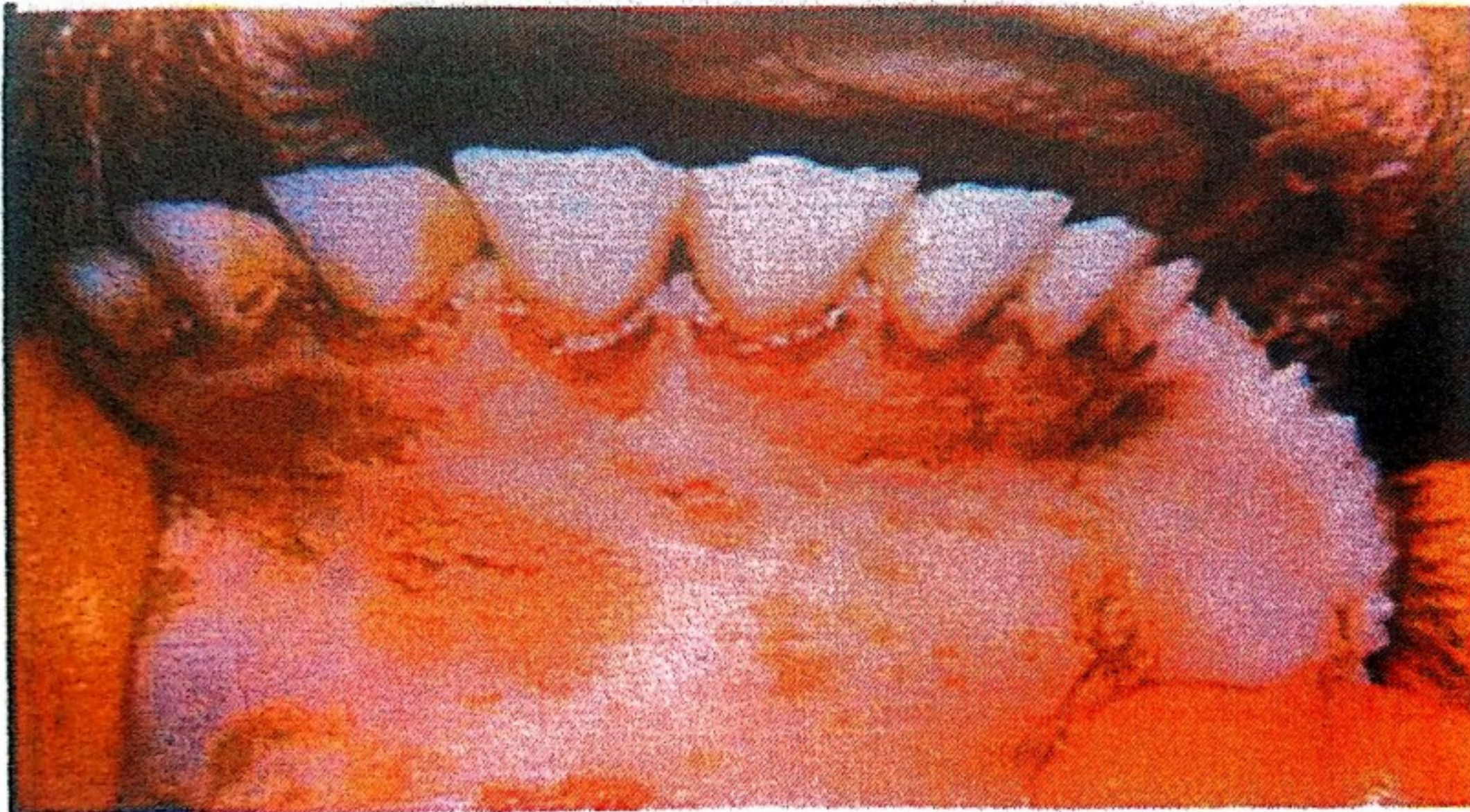


Cattle plague

erosions on the gums of an affected cow





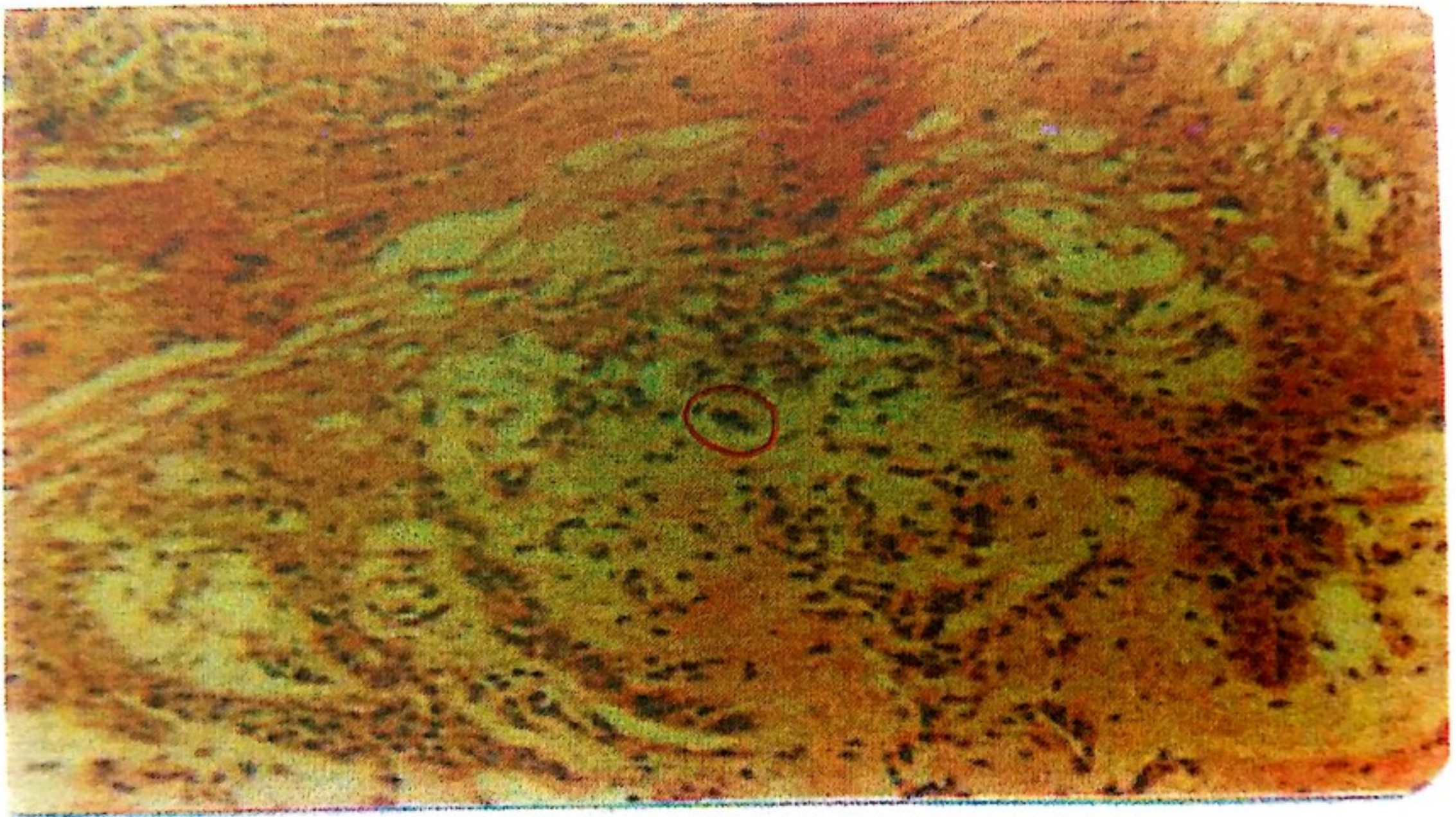


### Cattle plague

congestion and reddening of the root of the teeth  
and erosions of the lower gum





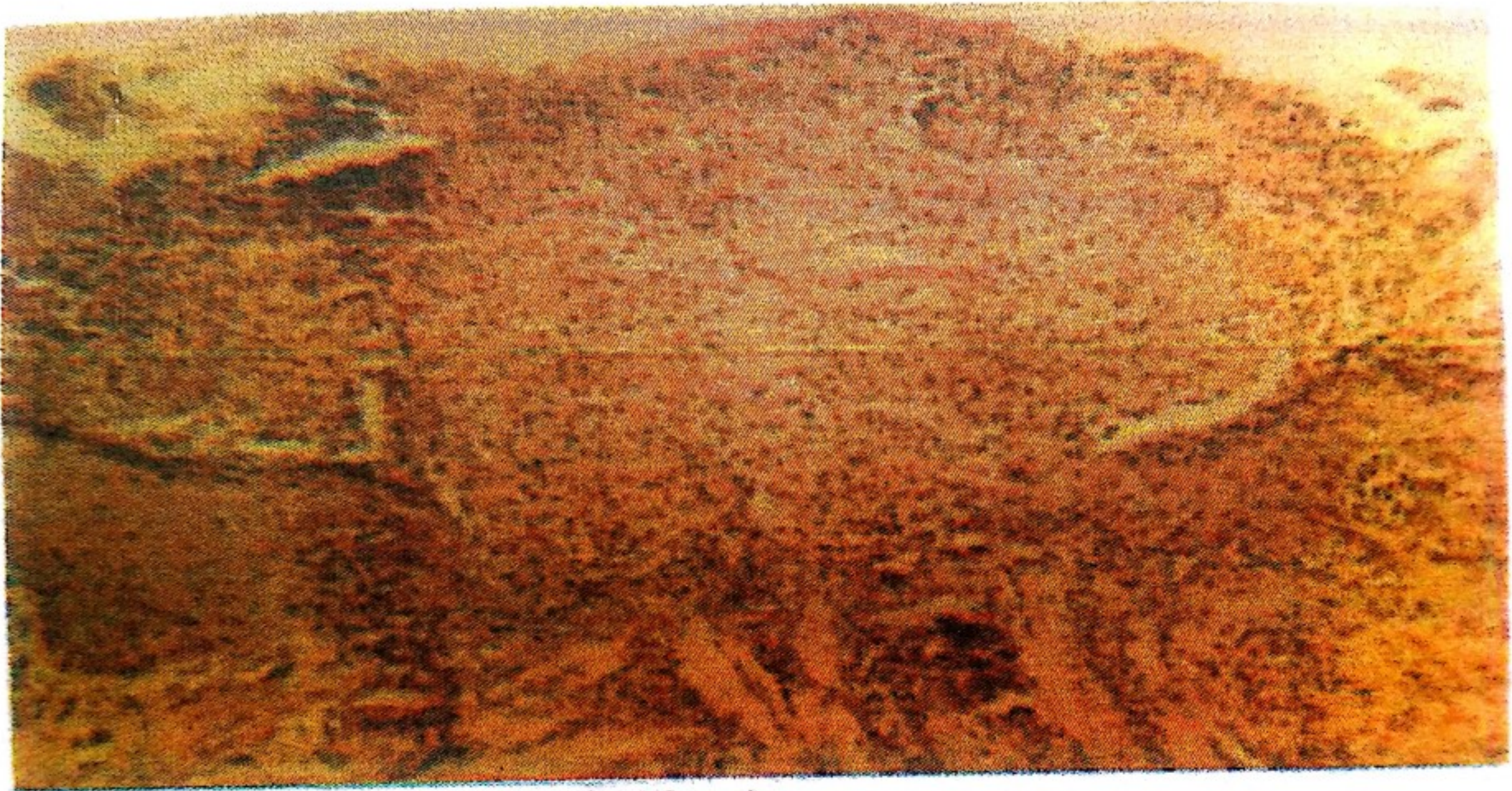


### Cattle plague

Cheek : cells of stratum spinosum undergo coagulative necrosis  
neutrophils infiltrate the mucosa  
(giant cells and intracytoplasmic inclusions may be present)







### Cattle plague

Tongue : necrotic stomatitis

regenerating granulation tissue in the mucous membrane - damage of the cells of stratum germinativum - chronic inflammation of the submucosa



Coagulative necrosis





Cattle plague

Lymph node: enlargement and edema





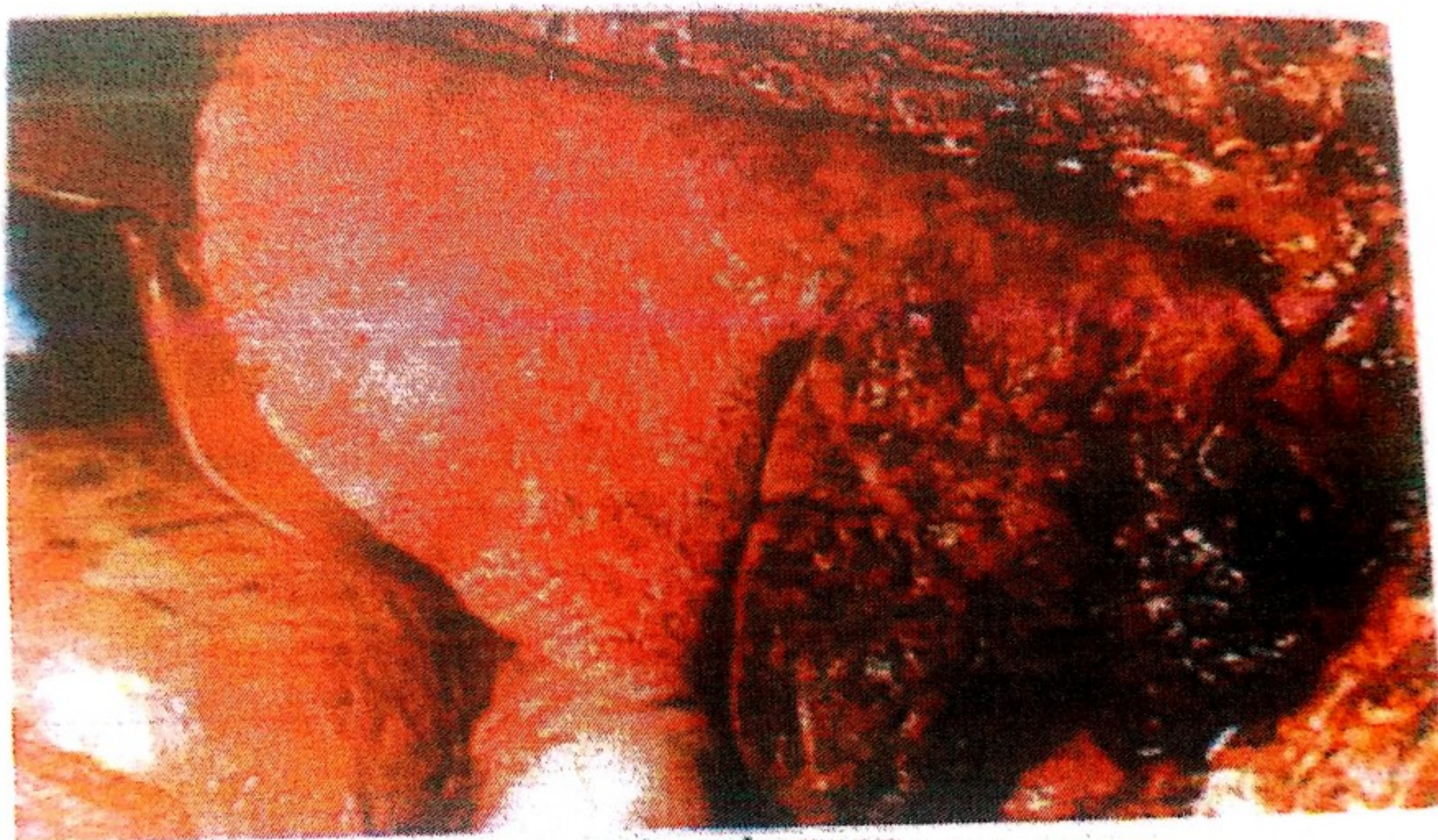


Cattle plague

Abomasum (fundic portion) : congestion and  
haemorrhage





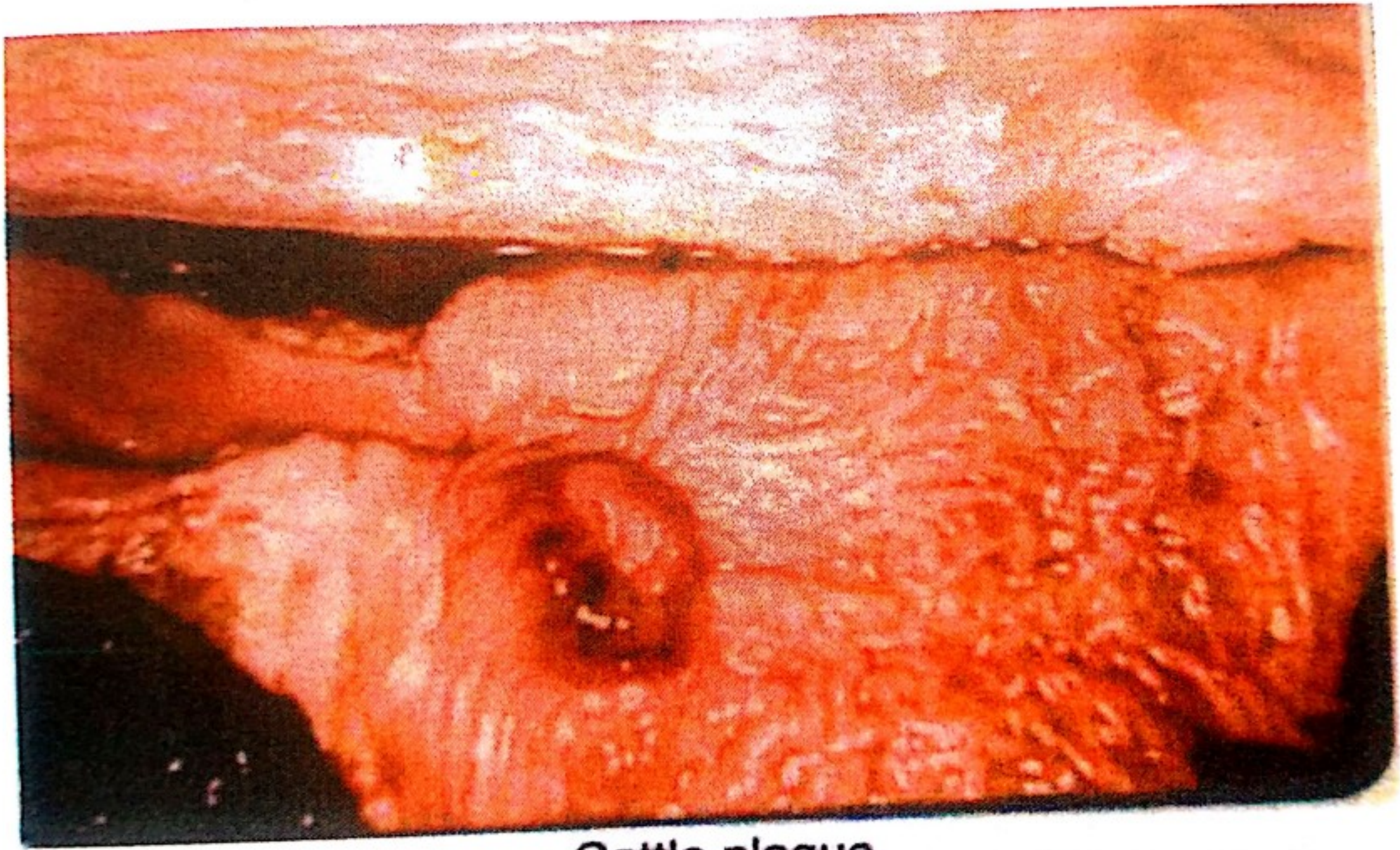


Cattle plague

Lung: severe congestion of the anterior lobes



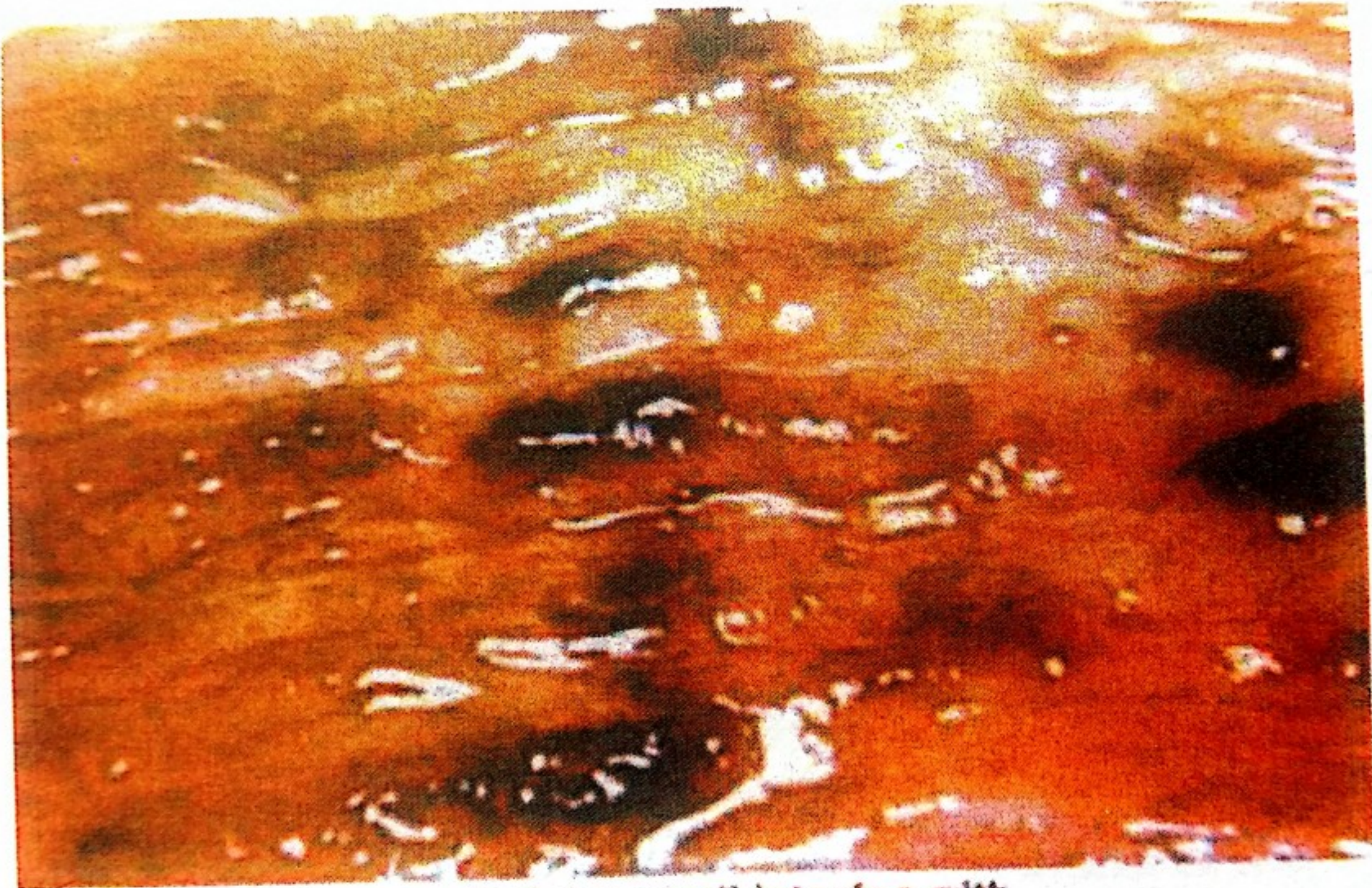




Cattle plague  
congestion of the ileocecal valve



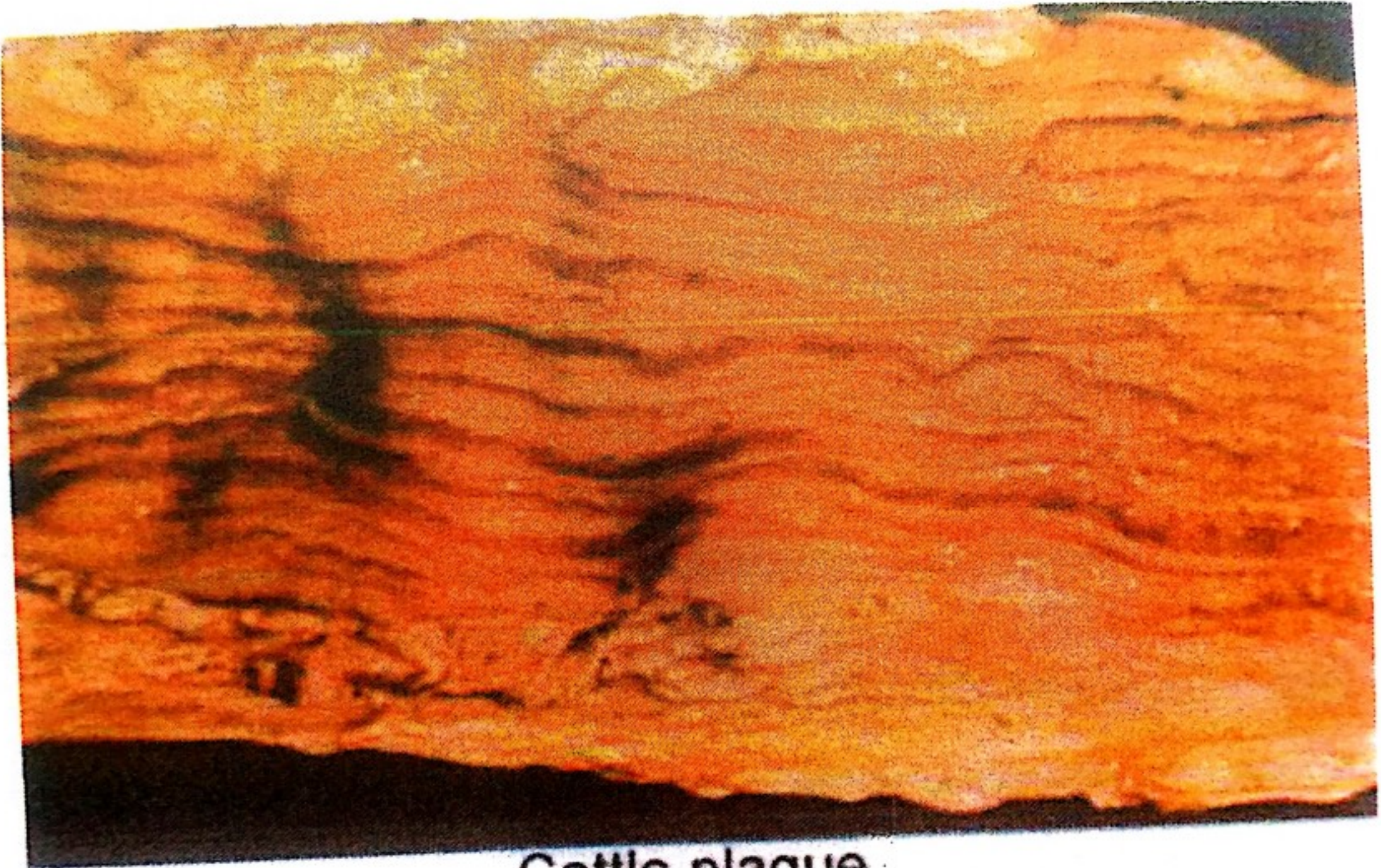




13 Close-up of an area of the small intestine with hemorrhage and erosions (RP).







Cattle plague  
"Zebra-stripping " in the distal colon and rectum





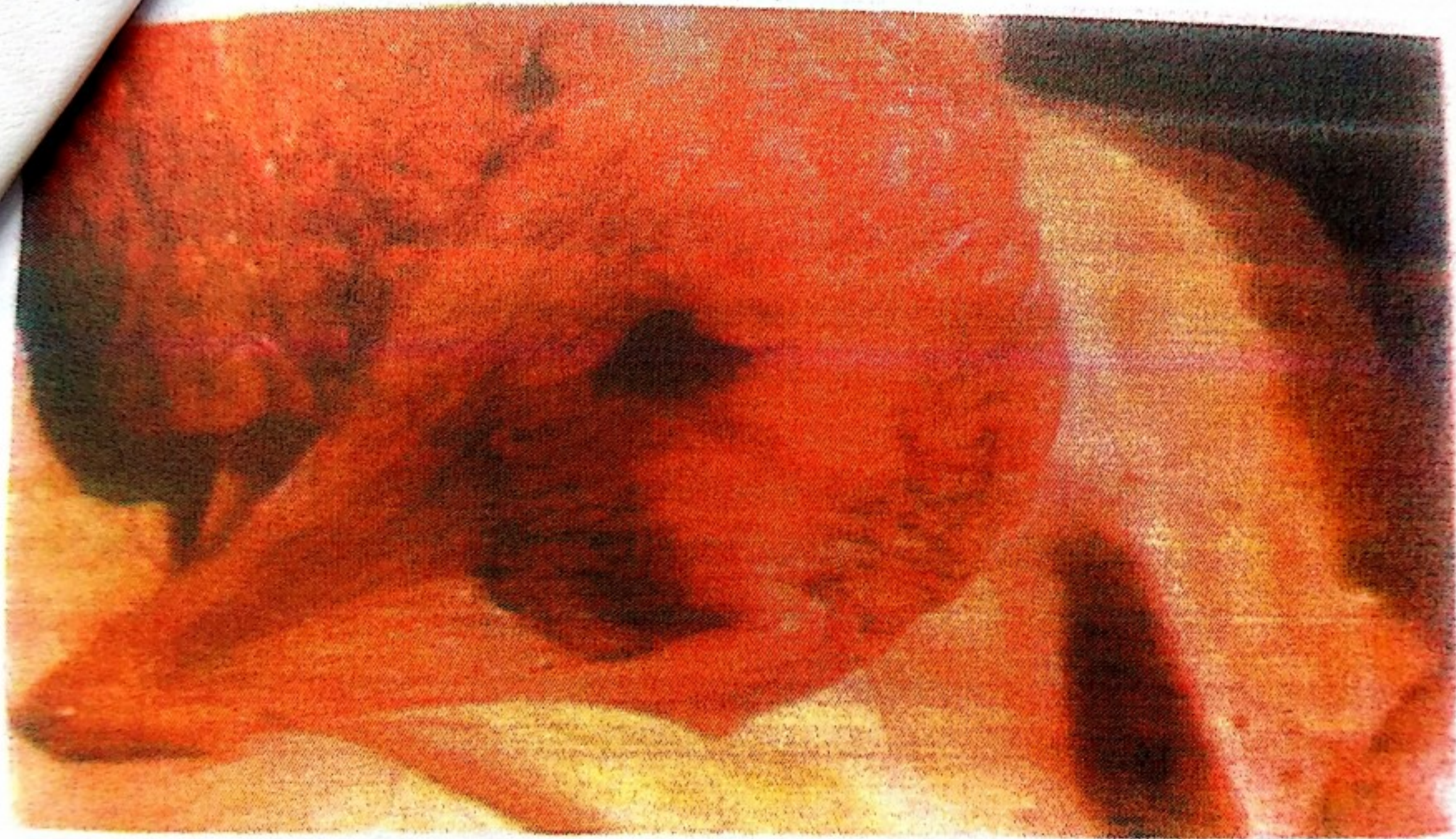


Cattle plague

Intestine: severe congestion and haemorrhage

✓





### Cattle plague

Intestine (ileocecal valve) : severe haemorrhagic inflammation and thickening of the mucosa





## Cattle plague

Haemorrhagic enteritis: the crests of longitudinal folds of the colon and transverse folds of the rectum show bright red haemorrhagic strippings (zebra markings)







### Cattle plague

Small intestine: the mucosa above the area of Peyer's patches is necrotic and the epithelium undergo sloughing leading to the formation of ulcers





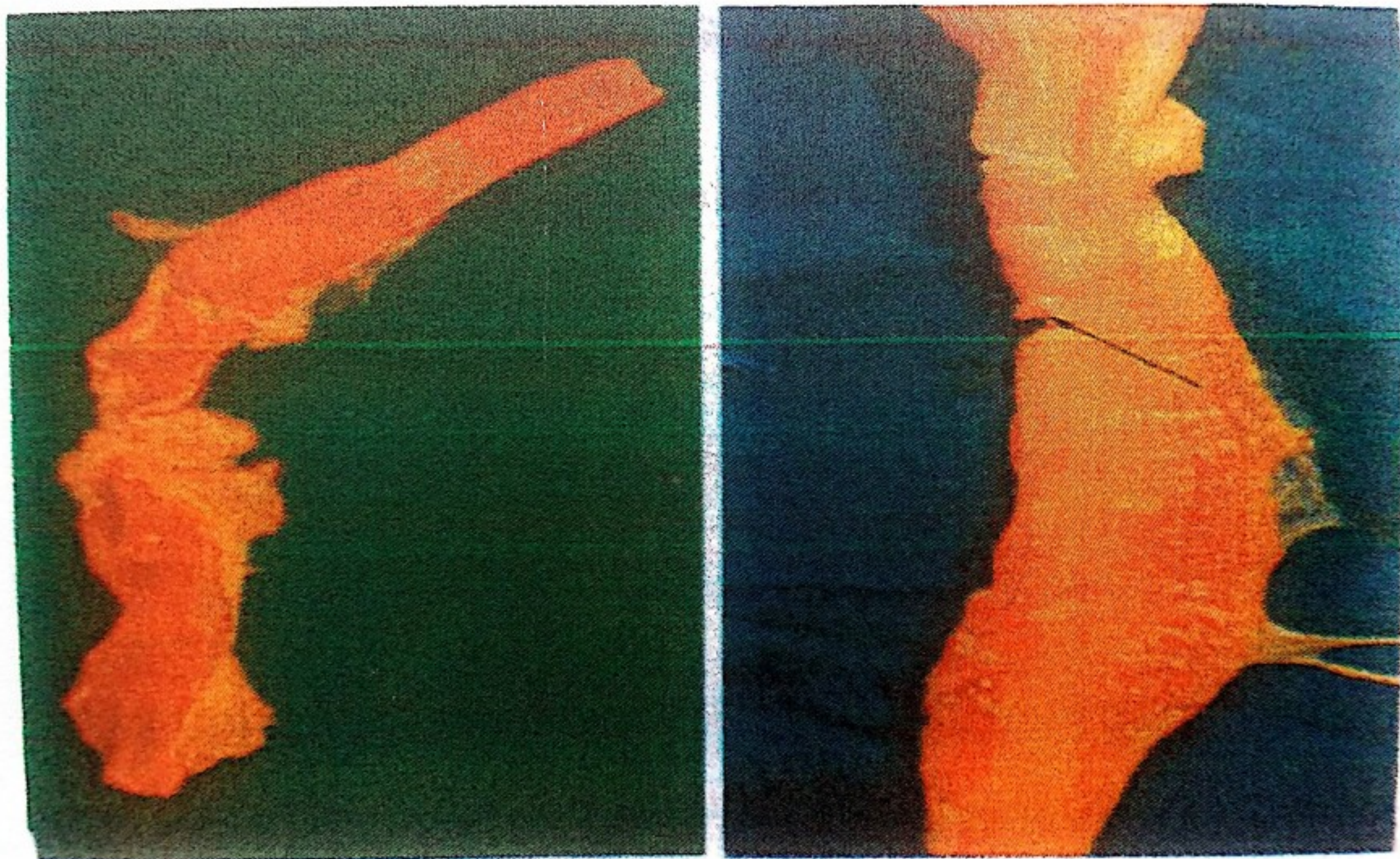


### Cattle plague

Small intestine: haemorrhagic enteritis (the intestinal wall is thickened and intensively reddened or tinged with blood)





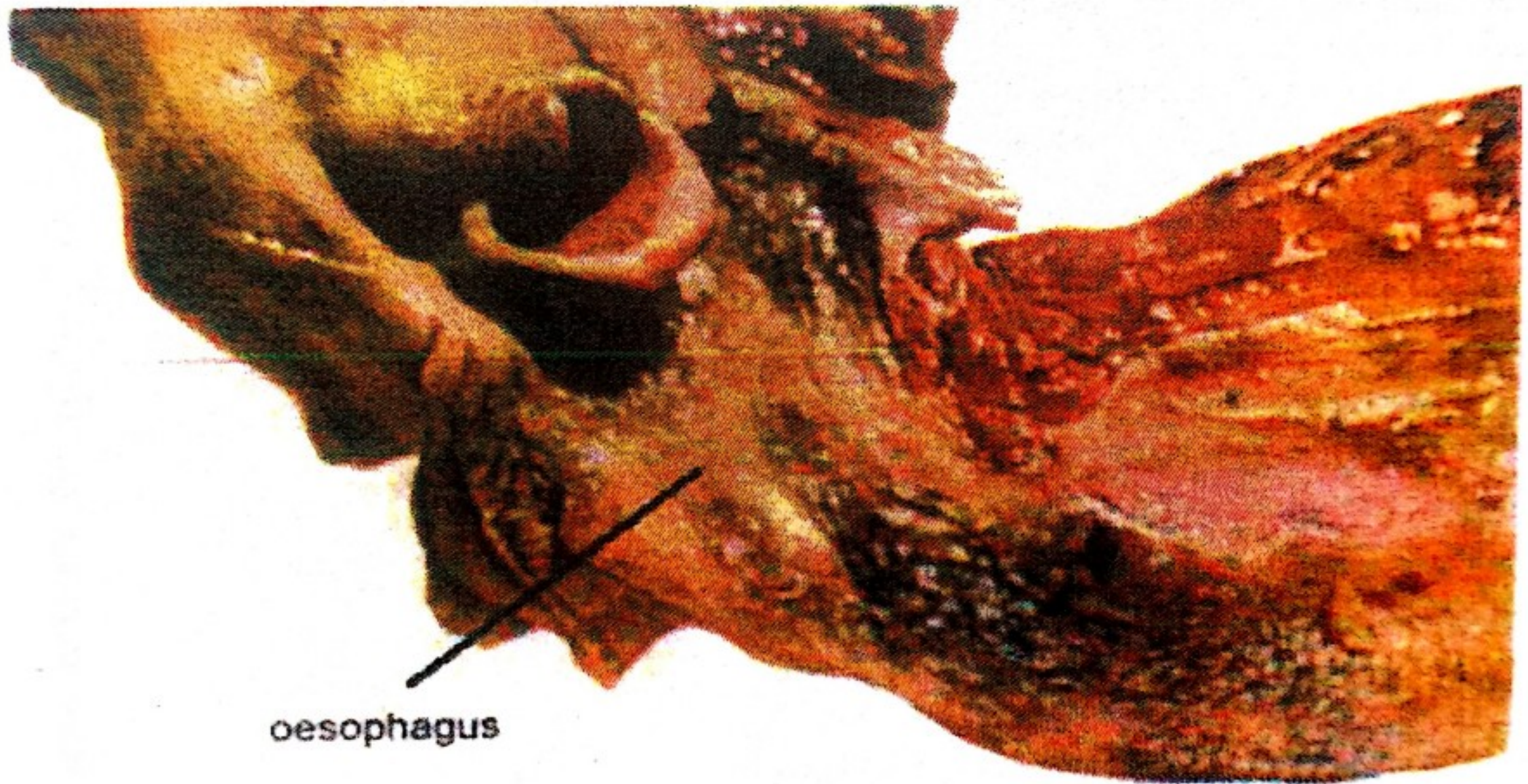


Cattle plague

severe congestion of the small intestine and  
ileocecal valve







oesophagus

Cattle plague

✓ Oesophagus : severe infection with focal yellowish-white necrotic areas on the mucosa



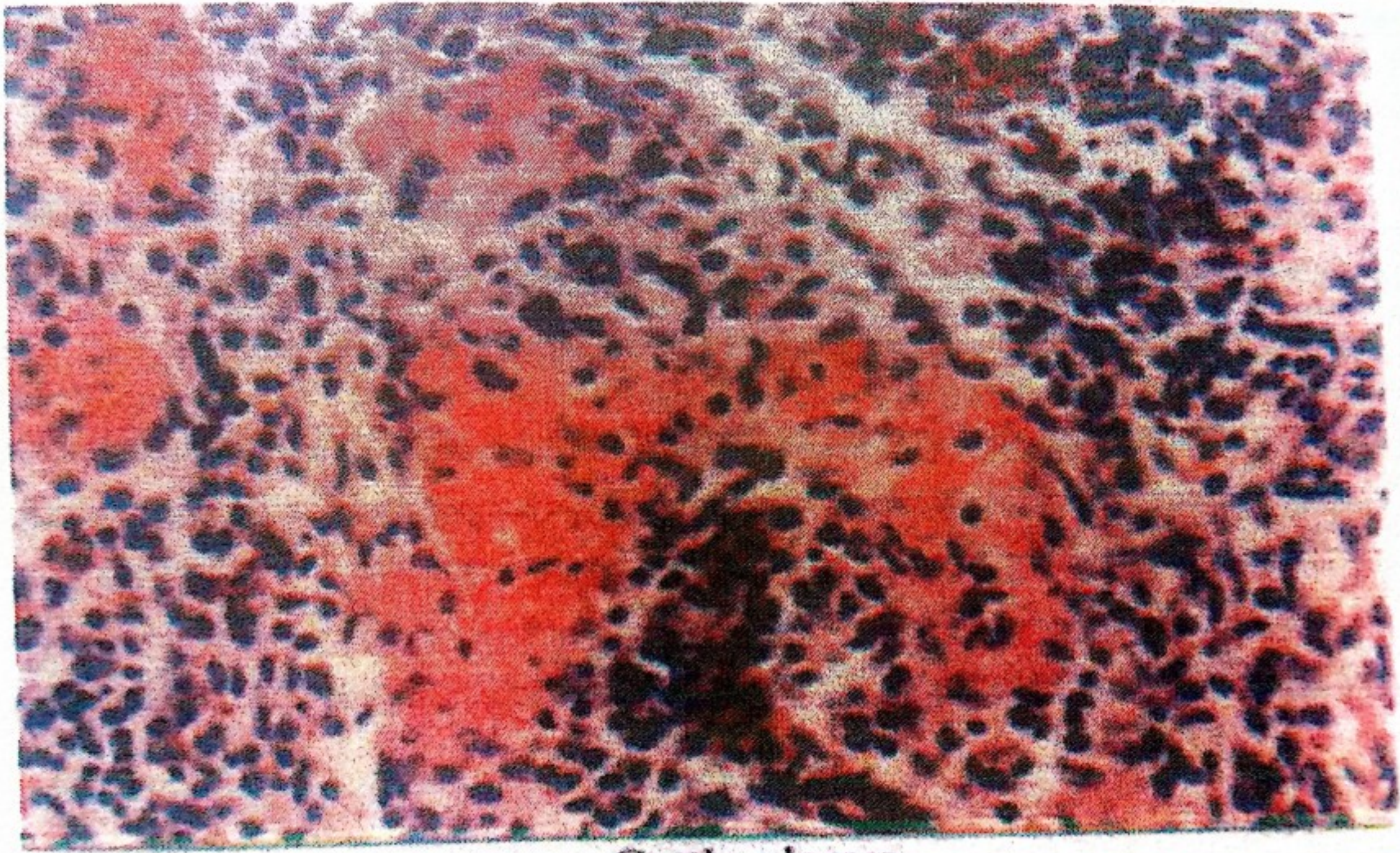


### Cattle plague

Necrotic glossitis in the tongue  
pin-headed foci on the dorsum of the tongue giving  
the appearance as if the organ being sprinkled with bran-mash





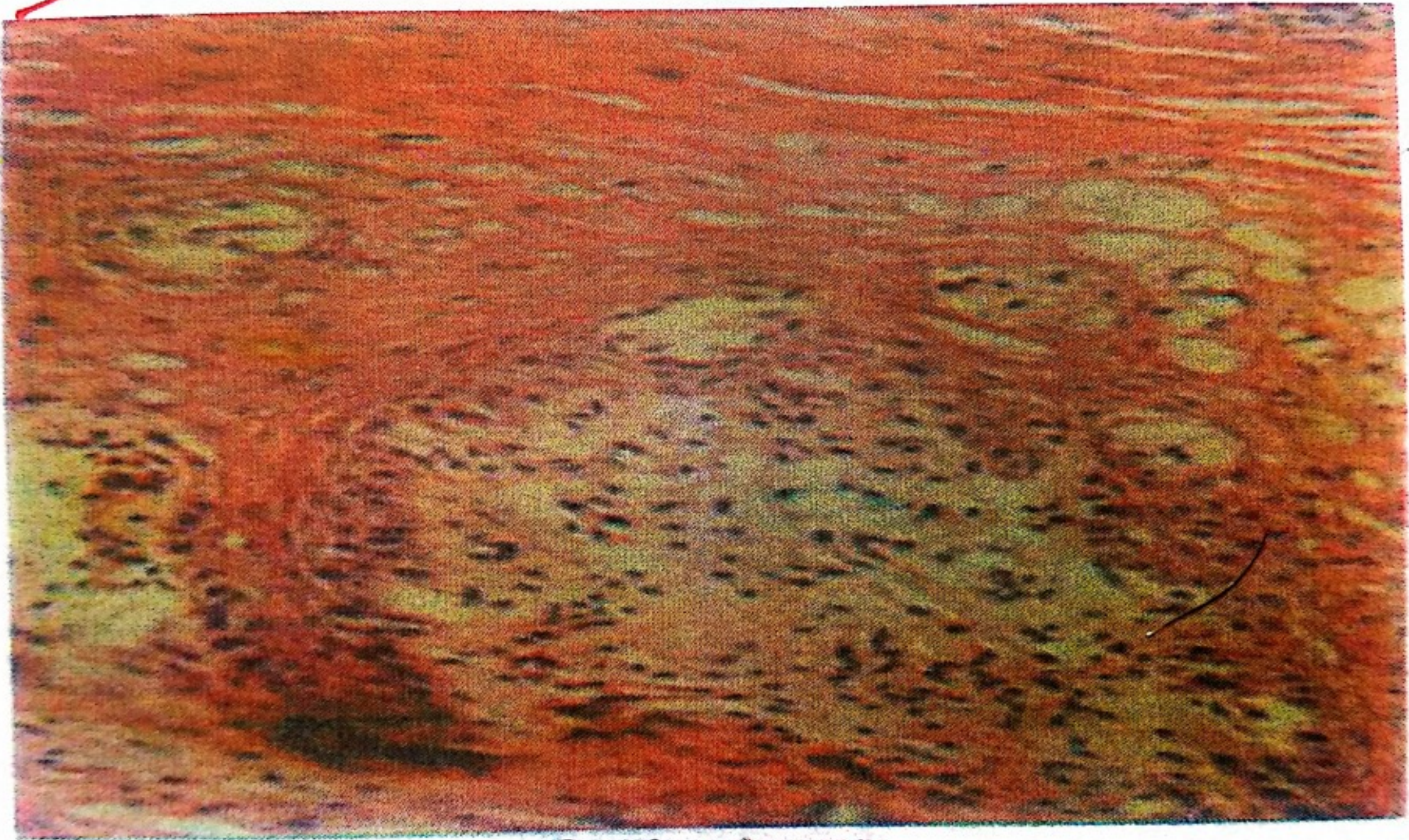


### Cattle plague

Lymph node: destruction and disappearance of lymphocytic elements (lymphoblasts and lymphocytes) leaving eosinophilic reticulum



Micrograph



**Cattle plague**

Lip: degeneration and vacuolation of cells of prickle cell layer may occur at an early stage followed by necrosis

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## **Vesicular Stomatitis**

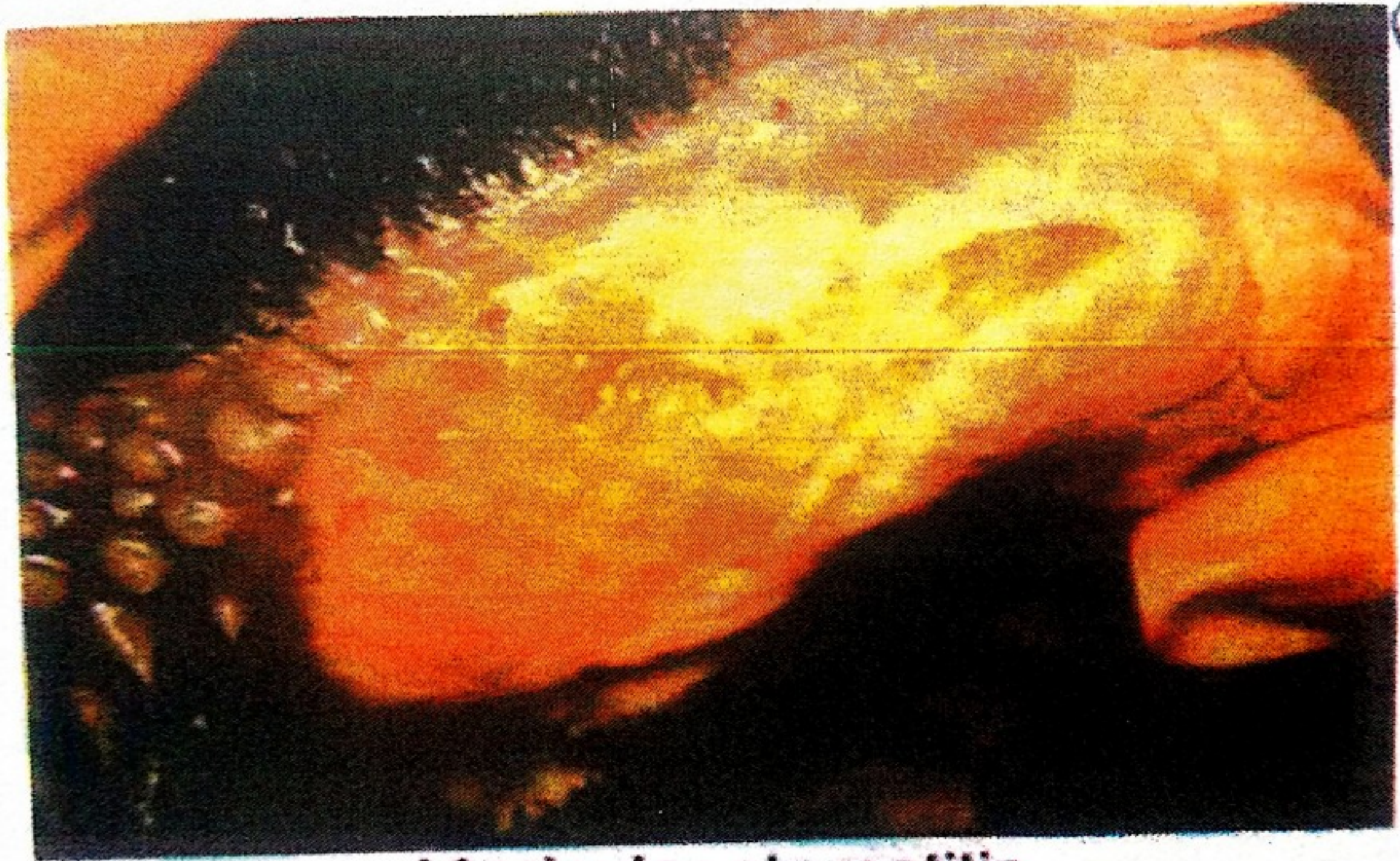
**Mouth :** vesicles / erosions

**Tongue :** vesicles / erosions

**Feet :** vesicles / erosions rarely

**Brain :** encephalomyelitis rarely





**Vesicular stomatitis**  
Tongue: ruptured vesicles





**Vesicular stomatitis**  
**Lesions on the rugae of the hard palate**